

MARSHALL STAR

Serving the Marshall Space Flight Center Community

Jan. 17, 2002



Alex Adams



Michael Rudolphi



Daniel Dumbacher

Nine Marshall employees selected for NASA Fellowships

The Executive Development Education Panel, comprised of members from across NASA, recently met at NASA Headquarters to make selections for the 2002-2003 NASA Fellowship Programs.

These programs consist of developmental opportunities at noted universities. The candidates submitted nomination paperwork and were selected based on paper review or interview. Thirty-seven of the 55 agency candidates were selected to participate. Of the 37 selected, nine are Marshall employees.

Marshall employee selections are: Alex C. Adams, Safety and Mission Assurance Office, Syracuse University Certificate in Public Administration; Michael U. Rudolphi, Space Shuttle Projects Office, Harvard Senior Executive Fellows; Daniel L. Dumbacher, Second Generation Reusable Launch Vehicle Program Office, Harvard Senior Manager in Government; Deborah S. Bowerman, Center Operations Directorate, Penn State Developing Managerial Effectiveness; Steven P. Durham, Customer and Employee Relations Directorate, Penn State Leading with Impact; Pamela A. Bourque, Office of Chief Counsel, Simmons Strategic Leadership for Women; Joe T. Howell, Flight Projects Directorate, UCLA Creativity and Innovation in the Organization; Robert Garcia, Space Transportation Directorate, University of North Carolina Program for Manager Development; and Davy A. Haynes, Space Transportation Directorate, University of Tennessee Engineer/Scientist as Manager.



Deborah Bowerman



Steven Durham



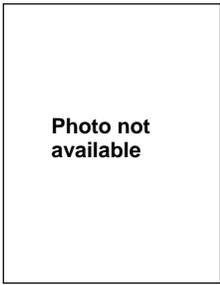
Pamela Bourque



Joe Howell



Robert Garcia



Davy Haynes

Diverse Space Shuttle flights to set records, continue challenges in 2002

NASA news release

On the heels of making space history in 2001 by completing the first phase of the International Space Station assembly in orbit, the Space Shuttle will continue a string of space firsts during six missions planned for 2002.

“In the past 12 months, we’ve

completed some of the most challenging space flights in history,” said Space Shuttle Program Manager Ron Dittmore. “In the next year those challenges will continue with missions just as complex. The team continues to excel safely and successfully, and 2002 promises to be just as rewarding as the past year.”

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Inside the Star

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Death of Burt Edelson highlights his NASA legacy

NASA news release

More than 15 years after he left NASA, the late Dr. Burt Edelson's legacy can still be seen in NASA's Space Science and Earth Science programs.

Edelson passed away Jan. 6 in New York City, where he was visiting family and friends. He was 75.

Between 1982 and 1986, he was NASA's associate administrator for Space Science and Applications. Soon after arriving, he approved the program that would provide for the development of new instruments for the Hubble Space Telescope.

"He had the vision and foresight to know that Hubble had to be maintained and upgraded," said Dr. Edward Weiler, associate administrator for Space Science, who was the Hubble program scientist in the 1980s. "He allowed us to start development of the second Wide-Field/Planetary Camera, which was installed during the first Hubble servicing mission and became the telescope's workhorse scientific instrument."

Coincidentally, on Jan. 8, only two days after Edelson's death, a NASA Space Science Update unveiled the latest findings from the camera: evidence that a substantial portion of the stars in the universe formed relatively quickly after the big bang.

Edelson's influence can also be seen in

'Burt Edelson sponsored the concepts that became Mission to Planet Earth, though it didn't become a program until after he had left NASA.'

— Dr. Ghassem Asrar, associate administrator for Earth Science

NASA's Earth Science Enterprise, which grew out of Mission to Planet Earth, a program originally proposed in 1986 and formalized in the late 1980s.

"Burt Edelson sponsored the concepts that became Mission to Planet Earth, though it didn't become a program until after he had left NASA," said Dr. Ghassem Asrar, associate administrator for Earth Science.

Edelson was a long-time advocate of the Landsat program and other applications of remote sensing research, said Asrar, and spent much of his professional life working for improvements in telecommunications satellite technology. He sponsored the development of NASA's Advanced Communications Technology Satellite, which was launched in 1993.

A graduate of the U.S. Naval Academy, Class of 1947, he went on to receive his master's and doctorate degrees from Yale University in New Haven, Conn., in metallurgy as part of his military service.

He was assigned to the Naval Research Laboratory in the mid-1950s, where he started a series of distinguished space applications projects in navigation and positioning and in 1959 started the U.S. Navy program in satellite communications. Commander Edelson was assigned from 1962-65 to the new White House National Space Council. Upon his retirement from the Navy in 1967, he joined Comsat Corp. as the deputy director of the fledgling Comsat Laboratories. He became its director in 1972.

Edelson provided the vision and leadership for a large number of new satellite communications components, systems and applications, including the development of small ground and ship terminals, space teleports and geostationary platforms. Edelson retired from Comsat as a senior vice president in 1982. He retired from NASA in 1986 and became a Fellow at the Foreign Policy Institute of the Johns Hopkins University, School of Advanced and International Studies, in Washington.

His desire to have a satellite communi-



Burt Edelson

cations research and development center with engineering capability resulted in his 1991 founding of the Institute for Applied Space Research at the School of Engineering and Applied Science of the George Washington University in Washington. He remained active directing research and development projects, primarily in high data-rate satellite communications, until his death.

Edelson co-authored a number of books on satellite communications and had more than 75 technical publications. He chaired national and international committees on science and engineering and served on the boards of a number of emerging companies. He always emphasized the global nature of space and co-founded a number of international space programs including the Japan-U.S. Science Technology and Space Applications Program. He was a member of the International Academy of Astronautics, a Life Fellow of the IEEE, and a Fellow of the AIAA, the AAAS and the British Interplanetary Society. He was a member of the Cosmos and Army-Navy Club. He received numerous awards including the U.S. Navy Legion of Merit, the Yale University Wilbur Cross Medal, the NASA Exceptional Service Medal and the SSPI Hall of Fame Award.

He is survived by his wife of 49 years, Betty Good Edelson; his sons Stephen, John and Daniel and their wives Margaret, Catherine and Vivian; and his grandchildren Rachel, Kate, David, Rose and William.

Billy Lightsey to receive funds to further optics research

The National Reconnaissance Office announced in December it will fund a study by NASA researchers of “Semi-Deterministic Image-Based Phasing Technique for Segmented-Mirror Telescopes.” The Director’s Innovation Initiative makes the funds available.

William “Billy” Lightsey of the Marshall Center’s optics group at the National Space Science and Technology Center (NSSTC) was the author of the winning proposal and is the principal investigator.

The short nine-month effort will build on the expertise in segmented mirror telescopes established at Marshall over the last 10 years. The work will involve the Phased Array Mirror Extendable Large Aperture (PAMELA) testbed under Lightsey’s care in a laboratory at the NSSTC. PAMELA is an extremely precise optical system encompassing a telescope with 36 actively controlled mirrors, many embedded position sensors, special control computers, and a unique wavefront sensor.

The National Reconnaissance Office designs, builds and operates the nation’s reconnaissance satellites. It is staffed by Department of Defense and CIA personnel and is funded as part of the National Foreign Intelligence Program. The existence of the National Reconnaissance Office has only recently been acknowledged by the government. The organization was declassified in September 1992. Only afterward was a sign displayed at its headquarters in Chantilly, Va.

In December 1996, the National Reconnaissance Office announced for the first time, in advance, the launch of a reconnaissance satellite. The mission of the National Reconnaissance Office is to enable U.S. global information superiority. The office is responsible for innovative technology, large-scale systems engineering, development and acquisition, and operation



Photo by Doug Stoffer, NASA/Marshall Space Flight Center

Billy Lightsey examines a mirror segment in his lab at the National Space Science and Technology Center on Sparkman Drive.

of space reconnaissance systems and related intelligence activities needed to support global information superiority.

Lightsey is a member of the Advanced Optics and Energy Technology Center at the NSSTC. He is completing his dissertation toward a doctorate degree in physics (optics) at the University of Alabama in Huntsville and is principal investigator on a Marshall Center Director’s Discretionary Fund project related to PAMELA and a research project for NASA Headquarters related to adaptive optics.

Lightsey previously served in the Chandra program supporting orbital analysis and control issue identification and resolution in the launch and commissioning phases of the x-ray telescope and spacecraft.

Greenhouse emissions growth slowed over past decade

NASA news release

A new NASA-funded study shows that the rate of growth of greenhouse gas emissions has slowed since its peak in 1980, due in part to international cooperation that led to reduced chlorofluorocarbon use, slower growth of methane, and a steady rate of carbon dioxide emissions.

Researchers have shown that global warming in recent decades has probably been caused by carbon dioxide (CO₂), and other greenhouse gases including

chlorofluorocarbons (CFCs), methane, tropospheric ozone, and black carbon (soot) particles.

Overall, growth of emissions has slowed over the past 20 years, with the CFC phase-out being the most important factor, according to the study.

“The decrease is due in large part to cooperative international actions of the Montreal Protocol for the phase-out of ozone depleting gases,” said Dr. James Hansen of NASA’s Goddard Institute for Space Studies, New York. “But it is also

due in part to slower growth of methane and carbon dioxide, for reasons that aren’t well understood and need more study.”

The findings appeared in the Dec. 18 issue of the Proceedings of the National Academy of Sciences. Hansen co-authored the paper with Makiko Sato of Columbia University, New York.

For more information visit: <http://www.gsfc.nasa.gov/topstory/20020103greenhouse.html>

Chandra takes in bright lights, big city of Milky Way

Marshall news release

NASA's Chandra X-ray Observatory has made a stunning, high-energy panorama of the central regions of our Milky Way galaxy. The findings are an important step toward understanding the most active area of the Milky Way, as well as other galaxies throughout the universe.

The Marshall Center manages the Chandra program for NASA.

Like a sprawling megalopolis, the new Chandra images show hundreds of white dwarf stars, neutron stars and black holes bathed in an incandescent fog of multimillion-degree gas around a supermassive black hole.

"The center of the galaxy is where the action is," said Q. Daniel Wang of the University of Massachusetts, Amherst. "With these images, we get a new perspective of the interplay between stars, gas and dust, as well as the magnetic fields and gravity in the region. We can see how such forces affect the immediate vicinity and may influence other aspects of the galaxy."

Wang presented the montage of 30 separate Chandra images Jan. 9 at the American Astronomical Society meeting in Washington, and in a paper published in the Jan. 10, 2002, issue of the journal *Nature*. The images, made with the Advanced CCD



Imaging Spectrometer (ACIS) July 16-21, 2001, covered a 400-by 900-light-year swath of the center of the galaxy.

The Chandra map shows that the high-pressure and high-temperature gas is apparently escaping from the center into the halo of the galaxy. "A galaxy is a sort of ecosystem, and the activity in the center can seriously affect the evolution of the galaxy as a whole," said Wang. "Astronomically, the center of the Milky Way is really in our backyard, and, therefore, provides an excellent laboratory to learn about the cores of other galaxies."

More information on Chandra and images associated with this release are available at: <http://chandra.nasa.gov>

Shuttle

Continued from page 1

The coming year will be marked by the Shuttle fleet matriarch Columbia's return to space on the first non-Space Station Shuttle flight in more than two years. In addition, flights by Atlantis and Endeavour will haul more than 50 tons of additional components to the Station and more than three dozen new experiments and two new laboratory racks. Discovery will remain on the ground in 2002 for standard maintenance and inspections.

In 2002, NASA plans to break a record set only last year for the most space walks ever conducted in a single year. From Space Shuttles alone, 15 space walks are planned coupled with seven space walks that are planned by crews from the International Space Station. In 2001, 18 total space walks were conducted — 12 from the Shuttle and six from the Station.

Columbia will begin the new year with a flight to the Hubble Space Telescope on mission STS-109, the fourth mission to service the space telescope since its launch in 1990. Five space walks will be conducted

during the flight to install an advanced new camera system, attempt to reactivate an existing infrared instrument system, install new solar arrays and install a new power controller. The mission will extend the lifetime and capabilities of the now-famous orbiting telescope.

When Columbia launches it also will become the second Shuttle ever to fly with a new "glass cockpit," installed as part of maintenance and modifications completed in 2001. The new cockpit has 11 full-color, flat-panel displays that replace 32 gauges and electromechanical instruments and four cathode-ray tube monitors in the old cockpit.

The new cockpit is lighter, uses less power and sets the stage for a future "smart cockpit" that will feature new, more intuitive displays to reduce pilots' workloads during critical periods.

In addition, the following flights are planned in 2002:

STS-110, mid spring: Atlantis will deliver to the International Space Station the first of three giant truss segments to be

launched in 2002.

STS-111, late spring: Endeavour will carry to the Space Station the fifth resident crew, the Leonardo logistics module filled with experiments and supplies, and a mobile base system — the second part of the mobile platform for the Station's innovative Canadarm2 robotic arm.

STS-107, mid-summer: Columbia will fly an international mission dedicated to microgravity science that will carry a double Spacehab module filled with 32 experiments involving 59 separate investigations.

STS-112, late summer: Atlantis will make its second visit of the year to the Space Station carrying the first starboard side truss segment.

STS-113, early fall: Endeavour will deliver the sixth resident crew and a port side truss segment to the station, completing almost half the length of the final truss.

For more information about upcoming Space Shuttle missions, please see: <http://spaceflight.nasa.gov/shuttle>

Way to go, Nelly!

After three years of medication and therapy to overcome a paralyzing disease, Nelly Duarte carries Olympic Torch in Nashville

by Debra Valine

In May 1998, Nelly Duarte, wife of Marshall engineer Alberto Duarte, was diagnosed with Guillian-Barre Syndrome, a paralyzing condition that left her unable to move anything except her eyelids.

Doctors did not expect her to ever walk again. But on Dec. 15, Duarte, 50, surprised family and friends when she stood up from her wheelchair and carried the Olympic torch — unassisted — for three long blocks in Nashville, as the torch made its way across the country. It was the same distance everyone else carried the torch. The only difference was that Duarte walked; everyone else ran.

Guillain-Barre is an inflammatory disorder of the nerves outside the brain and spinal cord. It causes rapid onset of weakness and often paralysis of the legs, arms, breathing muscles and face. It is rare, affecting about one person in every 100,000. It is unknown what causes Guillain-Barre, but most cases occur a few days or weeks after a viral or gastrointestinal infection. Duarte had received a tetanus shot two weeks before she started having symptoms.

Unbeknownst to Duarte, her niece, Monica Riddle of Atlanta, had nominated her to carry the Olympic torch through a contest sponsored by Coca-Cola. In early December, Duarte received notification that she had been selected.

"It was a conspiracy," Duarte said. "I knew nothing about it until two weeks beforehand." She was thrilled. She was sent instructions on where to be and a uniform.

"It was a wonderful experience," said Duarte.

"I tire very easily so I use a wheelchair," said Duarte, the only person in her torch-carrying group with a handicap. "No one knew I could walk. I have paralysis in my legs. I was in the wheelchair until it was time to walk my three blocks.

"I carried the torch the whole way without something to hold on to," Duarte said. "For my family it was like a miracle."

After Duarte was diagnosed with Guillain-Barre Syndrome in 1998, she spent seven months in the hospital, totally paralyzed. "I could only move my eyelids," Duarte said. She then spent 18 months in bed before she was able to sit in a wheelchair. She now has braces for her legs that help her walk.

"Now I enjoy every single thing about life," Duarte said. "I learned to be so grateful to everyone who helped me, from family to friends to strangers. I would not want anyone else to go through this disease, but I want people to learn how wonderful life is and appreciate the people around them. It is amazing how many people came to help me."

Duarte, who has a 13-year-old son, Fabiani, said it was the idea of leaving him without a mother that helped her through her ordeal. "My sister died young leaving my niece, Monica, without a mother. I did not want that to happen to my son. I prayed a lot that I would be able to recover."

Duarte's husband, Alberto, made word charts the family used to communicate until Nelly could learn to speak again.

Duarte, who was a competitive swimmer before being diagnosed with the syndrome, now swims 3,000 meters every day. She had to learn to write again — and now she writes calligraphy. "I enjoy oil painting," she said. "My pictures now reflect how much I appreciate life." She also enjoys cooking and cleaning; she takes nothing for granted.

Her advice to people is: "Enjoy your life. Today you can be healthy, and tomorrow maybe not. Make every day count."

The writer, employed by ASRI, is the Marshall Star editor.



Courtesy photo

Nelly Duarte

Keep vehicles in top shape for winter driving

It's the season for snow and ice, slipping and sliding ... and winter driving. Now is the time to get your car tuned up and have brakes, battery, fluid levels and the exhaust system checked. Make sure your heater and defroster are in good working order and seals on doors and windows are in top shape. Replace your wiper blades. Get ready for snow with antifreeze and winter weight oil. Carry emergency supplies — sand, salt, shovel, snow scraper, booster cables, blankets and a flashlight.

Of all the things you can do to make winter driving less stressful, giving yourself a little more time is the most important. More time to get to and from work and more time to stop when you're on the road. Going slower is the key to safe driving on slippery roads, and it's pretty hard to go slower when you're in a race with the clock.

The biggest hazard of winter driving is slippery roads caused by ice, slushy snow or rain, especially the first rain after a dry spell when oil and grease have built up on the roads. Remember how far it takes to bring your car to a stop on dry pavement? In winter conditions, allow at least three times that distance to reach a full stop and avoid skidding. This means your safe distance behind the car in front of you should be three times as far. And you must begin braking three times as far away from the stoplight or corner where you turn. Test your brakes frequently and never tailgate.

If in spite of your precautions you find yourself beginning to skid, do not brake. Instead, take your foot off the accelerator and gently turn your car in the direction you want your front wheels to go. Hitting the brakes or turning sharply will only lock you into a skid. If you can't get control of your car, it is better to steer into a snow bank or fence than to risk a collision in traffic.

Visibility is another big hazard of winter driving. In heavy snow, keep your lights on. Stop and clean your windshield and lights, if necessary. Get off the road before you get stranded by worsening weather conditions.

If you get stuck in snow, avoid spinning your wheels — you'll only dig in deeper. Instead, shovel snow away from the wheel paths and pour salt, sand or cinders around the drive wheels to improve traction.

To sum up: keep your car or truck in top shape, allow extra time and space on the road, and listen to the weather forecast. Sometimes the best winter driving strategy is to stay home.

Energy tip

Practical tips result in immediate savings

- When adjusting a thermostat by hand, remember that the space will not warm up or cool down any faster if you turn the thermostat beyond the desired temperature. It is easy to forget to lower the thermostat setting, which wastes energy dollars.

- If you have a heat pump, dramatically turning up the heat by hand is costly because it may trigger the inefficient backup heater, which is most often electric, eating up any savings from reducing the thermostat. A programmable thermostat designed for heat pumps will gradually raise the heat without activating inefficient backup heat.

- Clean or replace furnace and air conditioner filters once a month during heating/cooling season.

If you have an energy tip that you would like to share with the "Marshall Star" readers, send it to:

cedreck.davis@msfc.nasa.gov or

juergen.haukohl@msfc.nasa.gov

Job Opportunities

Announcement MS02D0019, Management Support Assistant (OA), GS-303-06, KSC Resident Office, Kennedy Space Center, Fla. Closes Jan. 18.

Announcement MS02D0022, Management Support Assistant (OA), GS-303-06, RSRM Resident Office, Brigham City, Utah. Closes Jan. 28.

Obituaries

Klook, Mary E., 84, of Huntsville, died Dec. 18, 2001. She retired from Marshall in 1982 where she worked as a program analyst.

Whitaker, Ervin B., 74, of Good Spring, Tenn., died Dec. 18, 2001. He retired from Marshall in 1975 where he worked as an engineering technician. He is survived by his wife, Helen Beddingfield Whitaker.

McCoy, John C., 70, of Fayetteville, Tenn., died Dec. 23, 2001. He retired from Marshall in 1981 where he worked as an engineer. He is survived by his wife, Mary Beams McCoy.

Lakin, David R., 76, of Hazel Green, died Dec. 20, 2001. He retired from Marshall in 1985 where he worked as an electronics engineer. He is survived by his wife, Maxine Lakin.

Freeman, Thomas B., 78, of Clarksville, Tenn., died Jan. 6. He retired from Marshall in 1979 where he worked as an electronics technician. He is survived by his wife, Vera Lee Crosslin Freeman.

Center Announcements

Blood drive

The American Red Cross monthly blood drive has been relocated to the new Wellness Center, Bldg. 4315, Digney Road, from 8 a.m.-1:30 p.m. Friday, in the multi-purpose room. Directions to the Wellness Center are from Rideout Road, take Digney Road East to Morris Road. The Wellness Center is on the left corner of Digney and Morris. The building is divided into two white sections with a pointed roof. The main entry has a red awning and is in the middle of the two buildings. Once inside, just follow the signs to the blood drive. The American Red Cross will be available from 8 a.m. until 1:30 p.m. All blood types are urgently needed. For more information, call Nancy Jane Fitzgerald at 544-7561.

Mentors needed

SHARP mentors — The Education Programs Department is initiating the 2002 Summer High School Apprenticeship Research Program (SHARP). SHARP is an eight-week paid apprenticeship for high school students who reside within commuting distance to a NASA field installation. Marshall will be placing between 20-26 students and will need mentors for each one. If interested in becoming a mentor, call Alicia Beam at 544-2849.

Summer Intern Program mentors — The Equal Opportunity Office's 2002 Summer Internship Program will be May 20-July 26. Approximately 77 students will need mentors from the technical directorates. If interested, call Madeline Hereford at 544-7420.

NASA Fellowship Program

The NASA Administrator's Fellowship Program has issued its annual call for applications. The length of the program is 18-22 months. For application and eligibility requirements, visit the Web at: <http://www.uncfsp.org/nasa/naftp>. For more information, call Vanessa Suggs at

544-7527. Applications should be forwarded to CD20/Vanessa Suggs no later than Jan. 25.

King Unity Breakfast

The Seventeenth Annual Martin Luther King, Jr. Unity Breakfast will be at 8 a.m. Jan. 21 in the Von Braun Center North Hall. Dr. Kevin W. Cosby, senior pastor of St. Stephen Baptist Church in Louisville, Ky., will speak. For tickets — at \$20 each — see Madeline Hereford in the Equal Opportunity Office, Bldg. 4200, room 716.

TSP Open Season

Thrift Savings Plan (TSP) Open Season continues through Jan. 31, 2002. Employees are encouraged to submit changes via the Web at: www.employeeexpress.gov. For more information, call Ginger Martin at 544-5654, or Debbie Allen at 544-7536.

Upcoming classes

For a complete list of training opportunities at the Marshall Center, visit the "Inside Marshall" Web site.

Clubs and Meetings

Genealogy society meets

Patricia Young will present a program on American Indians at the Huntsville Genealogical Computing Society's monthly meeting at 7 p.m. Monday in the auditorium of the Huntsville-Madison County Public Library on Monroe Street in downtown Huntsville. Visitors are encouraged to attend and are always welcome. Reservations are not required.

Toastmasters International

NASA Lunar Nooners Toastmaster's Club meets every Tuesday at 11:30 a.m. in the conference room of the cafeteria in Bldg. 4610. Visitors are

welcome. For more information, call Dr. Ruth D. Jones at 544-3191 or send an e-mail to: ruth.jones@msfc.nasa.gov.

Shuttle Buddies meet

The Shuttle Buddies will meet for breakfast at 9 a.m. Jan. 28 at Mullins Restaurant on Andrew Jackson Way. For more information, call Deemer Self at 881-7757 or Gail Wynn at 852-8189.

Miscellaneous

Retiree history book

The NASA-Marshall Center's Retiree Association book, "50 years of Rockets and Spacecraft" that was scheduled to be released at the end of 2001 has been re-scheduled to be released in summer 2002. Articles by individuals may be contributed until Jan. 31 to: Randy Baumgardner, Editor, Turner Publishing Company, 412 Broadway, P.O. Box 3101, Paducah, KY 42002-3101, or send an e-mail: randyb_editor@yahoo.com. To order a copy of the book, send \$34.95 to Turner Publishing Company, PO Box 3101, Paducah, KY 42002 by check or money order. Include \$6 for shipping.

NASA Exchange

Ballroom dance lessons

Bronze-level fox trot augmented by silver patterns lessons will be taught Monday evenings in January in the Parish Hall of St. Stephen's Episcopal Church, second building north of Lily Flagg Road on Whitesburg Drive. Intermediate lessons will be from 7-8 p.m. and beginner lessons will be from 8-9 p.m. Cost will be \$7 per person. For more information, call 650-0200.

Employee Ads

Miscellaneous

- ★ Optimus CD8150 5-disc changer & 26W speakers, \$100; encyclopedias and dictionaries, \$20; Sony VAIO computer and monitor, Lexmark printer, \$600. 722-9483
- ★ Rattan dining/breakfast set; rectangular glass top table, six rattan armchairs on rollers, \$250, four rattan barstools, \$100. (256) 355-3089
- ★ General Electric dishwasher, \$50. 837-3562
- ★ New Makita 9.6V cordless drill w/2 batteries, charger, flashlight and case, \$100; black toolbox for small truck, \$40. 233-5403
- ★ Turkish hand-woven carpet, 8'x10', Heriz design, rust/seafoam colors, \$650; King Ludwig soup tureen. 882-6832
- ★ Pioneer stereo cabinet, glass door 4' tall, 16" deep, 19" wide, \$45. 461-8369
- ★ Mobile home, 16'x76', Southern Lifestyle 2001, 3 bedrooms, 2 baths, owner finance. 230-0954
- ★ Elliott's daybed, black gold dust finish, new \$300; new trundle, \$50. 534-7981
- ★ Martin gas logs, new, vent free, 2-burner, 40Kbtu, 24" or 28", \$250. 539-7857
- ★ Snap-on professional mechanics tool box, Model KR1000, 16 drawers, \$1,800 obo. 858-5552
- ★ Mobile home, 80'x16', \$13,500. (256) 722-9768
- ★ Double bed w/box spring, \$80; TV/VCR stand, \$10. 721-9980
- ★ Schwinn 12-speed bicycle, 19" frame, \$150; Model airplane, OS 46 engine, Futaba 8-channel radio, \$350. 527-5247
- ★ Solid oak coffee table w/4 glass inserts, \$30; Zoom 56K Flex external modem, \$25. 464-3300
- ★ 1996 Cobalt 220 Mercruiser 250 with Brava III outdrive, 81 hours, \$20,000. (256) 464-5008
- ★ Sony EXCD-206 car CD/AM/FM player, 40x4 watts, preouts, single DIN size, \$50. 772-8712
- ★ Antique Duncan-Fyffe mahogany coffee table, \$40. 881-8674
- ★ Brentwood rocker, original. (256) 890-0610
- ★ Gas logs, Monessen, vented, LP, \$250; Global Village teleport, 56K V.90 external modem,

- \$25. 881-7000
- ★ Software for Tax Year 2001: TaxCut Deluxe-Federal, TaxCut-State; Financial software: Microsoft Money 2002 Standard, all new, \$40 for all. 837-0625
- ★ Nintendo game cube, two controllers, memory card, two games, used less than 10 hrs. 351-6855
- ★ Protecto truck bedliner, fits 89-98 Chevy/GMC full-size pickup, \$40; motorcycle helmet, full-face, small, never worn, red, \$50. 864-0465
- ★ Utility trailer, 5x8, tilt bed, 14" tires, 3,500 lb. axle, 1999 model, \$375. 859-6522

Vehicles

- ★ 1989 Honda Accord LX, 4-door, non-smoker, auto, \$2,800. 325-6000
- ★ 1994 Dodge Grand Caravan, champagne color, V-6, air, power windows/locks, AM/FM cassette, child seats, \$3,300. 851-9982
- ★ 1996 Nissan Sentra GXE, 4-door, 140K miles, 4-cyl., auto, 38 mpg, \$3,950. (256) 753-2278
- ★ 1968 Ford pickup, 3-speed, \$1,900. 720-8608
- ★ 1978 Chevrolet LWB work truck, 4x4, lock-in hubs, rough body/paint, needs front brake job, \$1,800. 837-6797
- ★ 1989 Volvo 240 sedan, high miles, good engine, sell as is, \$1,500 obo. 881-9459
- ★ 1991 Chevrolet Z71, extended cab, 4WD, blue/silver, 192K miles, one-owner, all maintenance records. 230-0762
- ★ 1999 Grand Jeep Cherokee Laredo, gold package, 86K miles, one-owner, \$15,000. 518-9802
- ★ 1996 Chrysler Town and Country minivan, \$9,500. (256) 498-2748/508-2072
- ★ Restored 1931 Ford Coup w/rumble seat, antique show winner. (256) 890-0610
- ★ 1992 Nissan Sentra XE, one-owner, a/c, cruise, CD, power mirrors, \$1,695. 464-0256
- ★ 2000 Yamaha KE 100 street/trail motorcycle, \$1,500; 1981 Yamaha XJ 550 Maxim motorcycle, low miles, \$1,500. 828-5142
- ★ 1997 Ford F-150 Flairside, 24K miles, V-6, 5-speed, white, standard cab, trailer pkg., \$12,900. (256) 431-8722
- ★ 2000 Toyota Camry, 4-cyl., teal blue, AM/FM cassette/CD, 6K miles, all power, \$15,500 obo. 881-2052

- ★ 1997 Nissan Altima, red/gray interior, 86K miles, \$7,500. 534-6453
- ★ 1994 Plymouth Grand Voyager, 104K miles, service records, new tires, all-power, cassette/CD, \$3,700 obo. 714-6819
- ★ 1999 Mustang GT, auto, a/c, red, 3.5K miles, Anniversary Edition, garaged, \$15,900 obo. (256) 883-6284
- ★ 1971 Volkswagen Westfalia camper, 4-cyl, 4-speed, low miles on rebuilt motor, \$3,800 negotiable. (256) 739-4734
- ★ 1995 Ford Escort, 4-door, auto, a/c, ps/pb, cassette, maroon/tan interior, \$3,000. 895-6231

Lost

- ★ Ladies black leather jacket, Bldg. 4612 parking lot, 1/08/02. 544-2698
- ★ Wristwatch left at base gym, Christmas time, black watch with black wristband. 544-0250

Found

- ★ Pearl bracelet, outside Bldg. 4203, Dec. 21. Call 544-5884 to claim
- ★ Silver bracelet, Bldg. 4200 area. Call 544-7686 to claim/identify
- ★ Cell phone. Call 544-6686 to claim/identify

Wanted

- ★ Good used clarinet for first time student. 828-6325
- ★ Twin size mattress only or full size set. 852-4406
- ★ Charger for 12 volt Black/Decker tool battery. 534-4968

Free

- ★ Puppies, 7 wks. old, 3 females, black and white, wormed and first shots. 971-0048
- ★ Yellow lab/hunting dog mix, 2 yrs. old; kitten, 3 months old.
- ★ Beagle, 1-2 years old, female. 859-5475

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